AMENDMENTS TO THE CLAIMS

- 1. (Original) A carrier component suitable as an olefin polymerization catalyst, which is insoluble in a hydrocarbon solvent, is in the form of solid fine particles having an average particle diameter of 3 to 80 μm , and contains a magnesium atom, an aluminum atom and a $C_{1\text{--}20}$ alkoxy group simultaneously, wherein the molar ratio of magnesium atom to aluminum atom (Mg/Al) is in the range of 1.0 to 300, and the molar ratio of alkoxy group to aluminum atom (alkoxy group/Al) is in the range of 0.05 to 2.0.
- 2. (Original) The carrier component according to claim 1, wherein the molar ratio of magnesium atom to aluminum atom (Mg/Al) is in the range of 40 to 150, and the molar ratio of alkoxy group to aluminum atom (alkoxy group/Al) is in the range of 0.2 to 2.0.
- 3. (Currently Amended) The carrier component according to claim 1—or 2, which is obtained by contacting a magnesium halide with a C_{1-20} alcohol and then contacting the product with an organoaluminum compound represented by the general formula (Z):

 AlR_nX_{3-n} (Z)

wherein R represents a C_{1-20} hydrocarbon group, X represents a halogen atom or a hydrogen atom, n is an integer of 1 to 3, and when there are a plurality of Rs, Rs may be the same or different, and when there are a plurality of Xs, Xs may be the same or different.

- 4. (Currently Amended) An olefin polymerization catalyst comprising the carrier component described in any one of claims 1 to 3 claim 1.
- 5. (Currently Amended) An olefin polymerization catalyst comprising: The olefin polymerization catalyst according to claim 4, which comprises
- (A) a transition metal compound in the from any one of groups 3 to 11 in the periodic table, having a ligand containing two or more atoms selected from a boron atom, a nitrogen atom, an oxygen atom, a phosphorus atom and a sulfur atom,
- (B) the carrier component described in any one of claims 1 to 3, a carrier component suitable as an olefin polymerization catalyst, which is insoluble in a hydrocarbon solvent, is in the form of solid fine particles having an average particle diameter of 3 to 80 μ m, and contains a magnesium atom, an aluminum atom and a C_{1-20} alkoxy group simultaneously, wherein the molar ratio of magnesium atom to aluminum atom (Mg/Al) is in the range of 1.0 to 300, and the molar ratio of alkoxy group to aluminum atom (alkoxy group/Al) is in the range of 0.05 to 2.0, and
 - (C) a specific organometallic compound, if necessary.
- 6. (Currently amended) The olefin polymerization catalyst according to claim 4 or 5, wherein the transition metal compound

 (A) is carried on the carrier component (B). described in any one of claims 1 to 3.

- 7. (Currently Amended) A polyolefin having a bulk density of 0.20 (g/cm^3) or more, which is obtained by homopolymerizing or copolymerizing an olefin in the presence of the olefin polymerization catalyst described in any one of claims 4 to 6 claim 4.
- 8. (new) The olefin polymerization catalyst according to claim 5, wherein the molar ratio of magnesium atom to aluminum atom (Mg/Al) is in the range of 40 to 150, and the molar ratio of alkoxy group to aluminum atom (alkoxy group/Al) is in the range of 0.2 to 2.0.
- 9. (new) The olefin polymerization catalyst according to claim 5, which is obtained by contacting a magnesium halide with a C_{1-20} alcohol and then contacting the product with an organoaluminum compound represented by the general formula (Z):

 AlR_nX_{3-n} (Z)

wherein R represents a $C_{1\text{-}20}$ hydrocarbon group, X represents a halogen atom or a hydrogen atom, n is an integer of 1 to 3, and when there are a plurality of Rs, Rs may be the same or different, and when there are a plurality of Xs, Xs may be the same or different.